

# INFORMATION DISCLOSURE CITATION

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FEB 09 2004

Docket Number (Optional)

MST-2393 US

Application Number

10/723,795

Applicant(s)

Supuran et al.

Filing Date

November 26, 2003

Group Art Unit

\*EXAMINER  
INITIALS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

BF

Basini et al., "Carbonic Anhydrase Inhibitors: Water-Soluble 4-Sulfamoylphenylthioureas as Topical Intraocular Pressure-Lowering Agents with Long-Lasting Effects," J. Med. Chem., 43: 4884-4892 (2000)

Chegwidden et al., "The Roles of Carbonic Anhydrase Isozymes in Cancer," Gene Families: Studies of DNA, RNA, Enzymes and Proteins, Proceedings of the International Isozymes, 10th, Beijing, China, Oct. 5-10, 1999, Meeting Date 1999, 157-169 (Xue, G. ed.; World Scientific Pub. Co.; 2001)

Clare and Supuran, "Carbonic anhydrase inhibitors. Part 61. Quantum chemical QSAR of a group of benzenedisulfonamides," Eur. J. Med. Chem., 34: 463-474 (1999)

Cuthbert et al., "Bicarbonate-dependent chloride secretion in Calu-3 epithelia in response to 7,8-benzoquinoline," J. Physiol., 551(Pt 1): 79-92 (2003 Aug 15)

Franchi et al., "Carbonic Anhydrase Inhibitors. Inhibition of Cytosolic Isozymes I and II and Transmembrane, Cancer-associated Isozyme IX with Lipophilic Sulfonamides," Journal of Enzyme Inhibition and Medicinal Chemistry, 18(4): 333-338 (Aug. 2003)

Ilies et al., "Carbonic Anhydrase Inhibitors. Inhibition of Tumor-Associated Isozyme IX by Halogenosulfanilamide and Halogenophenylaminobenzolamide Derivatives," J. Med. Chem., 46: 2187-2196 (2003)

Pastorek et al., "Cloning and characterization of MN, a human tumor-associated protein with a domain homologous to carbonic anhydrase and a putative helix-loop-helix DNA binding segment," Oncogene, 9: 2877-2888 (1994)

Scozzafava and Supuran, "Carbonic Anhydrase Inhibitors: Synthesis of *N*-Morpholythiocarbonylsulfenylamino Aromatic/Heterocyclic Sulfonamides and their Interaction with Isozymes I, II and IV," Bioorganic & Medicinal Chemistry Letters, 10: 1117-1120 (2000)

Scozzafava et al., "Carbonic Anhydrase Inhibitors. Synthesis of Water-Soluble, Topically Effective, Intraocular Pressure-Lowering Aromatic/Heterocyclic Sulfonamides Containing Cationic or Anionic Moieties: Is the Tail More Important than the Ring?" J. Med. Chem., 42: 2641-2650 (1999)

Scozzafava et al., "Carbonic Anhydrase Inhibitors: Synthesis of Membrane-Impermeant Low Molecular Weight Sulfonamides Possessing in Vivo Selectivity for the Membrane-Bound versus Cytosolic Isozymes," J. Med. Chem., 43: 292-300 (Jan. 27, 2000)

Sterling et al., "The functional and physical relationship between the DRA bicarbonate transporter and carbonic anhydrase II," Am. J. Physiol. Cell Physiol., 283(5): C1522-C1529 (Nov. 2002)

BF

Supuran and Clare, "Carbonic anhydrase inhibitors. Part 24. A quantitative structure-activity relationship study of positively charged sulfonamide inhibitors," Eur. J. Med. Chem., 30: 687-696 (1995)

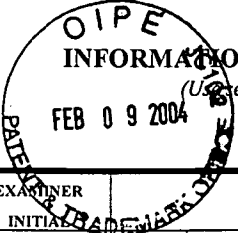
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/Brandon Fetterolf/

DATE CONSIDERED

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BF	Supuran and Clare, "Carbonic anhydrase inhibitors - Part 57: Quantum chemical QSAR of a group of 1,3,4-thiadiazole- and 1,3,4-thiadiazoline disulfonamides with carbonic anhydrase inhibitory properties," <u>Eur. J. Med. Chem.</u> , <b>34</b> : 41-50 (1999)		
	Supuran and Scozzafava, "Carbonic Anhydrase Inhibitors: Aromatic Sulfonamides and Disulfonamides Act as Efficient Tumor Growth Inhibitors," <u>J. Enzyme Inhib.</u> , <b>15</b> (6): 597-610 (2000)		
	Supuran and Scozzafava, "Carbonic anhydrase inhibitors - Part 94. 1,3,4-Thiadiazole-2-sulfonamide derivatives as antitumor agents?," <u>Eur. J. Med. Chem.</u> , <b>35</b> (9):867-874 (Sept. 2000)		
	Supuran et al., "Carbonic anhydrase inhibitors - Part 53. Synthesis of substituted-pyridinium derivatives of aromatic sulfonamides: The first non-polymeric membrane-impermeable inhibitors with selectivity for isozyme IV," <u>Eur. J. Med. Chem.</u> , <b>33</b> : 577-594 (1998)		
	Supuran et al., "Carbonic anhydrase inhibitors - Part 29: Interaction of isozymes I, II and IV with benzolamide-like derivatives," <u>Eur. J. Med. Chem.</u> , <b>33</b> : 739-751 (1998)		
	Supuran et al., "Carbonic Anhydrase Inhibitors: Synthesis of Sulfonamides Incorporating 2,4,6-Trisubstituted-Pyridinium-Ethylcarboxamido Moieties Possessing Membrane-Impermeability and In Vivo Selectivity for the Membrane-Bound (CA IV) Versus the Cytosolic (CA I and CA II) Isozymes," <u>J. Enzyme Inhibition</u> , <b>15</b> (4): 381-401 (2000)		
	Supuran et al., "Carbonic Anhydrase Inhibitors: Sulfonamides as Antitumor Agents?," <u>Bioorganic &amp; Medicinal Chemistry</u> , <b>9</b> (3): 703-714 (March 2001)		
	Supuran et al., "Carbonic Anhydrase Inhibitors," <u>Medicinal Research Reviews</u> , <b>23</b> (2): 146-189 (March 2003)		
	Teicher et al., "A Carbonic Anhydrase Inhibitor as a Potential Modulator of Cancer Therapies," <u>Anticancer Research</u> , <b>13</b> : 1549-1556 (1993)		
	Vullo et al., "Carbonic Anhydrase Inhibitors. Inhibition of Cytosolic Isozymes I and II and Transmembrane, Cancer-associated Isozyme IX with Anions," <u>Journal of Enzyme Inhibition and Medicinal Chemistry</u> , <b>18</b> (5): 403-406 (Oct. 2003)		
	Vullo et al., "Carbonic Anhydrase Inhibitors: Inhibition of the Tumor-Associated Isozyme IX with Aromatic and Heterocyclic Sulfonamides," <u>Bioorganic Medicinal Chemistry Letters</u> , <b>13</b> (6): 1005-1009 (March 24, 2003)		
BF	Wingo et al., "The Catalytic Properties of Human Carbonic Anhydrase IX," <u>Biochemical and Biophysical Research Communications</u> , <b>288</b> : 666-669 (2001)		
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Winum et al., "Carbonic Anhydrase Inhibitors. Inhibition of Cytosolic Isozymes I and II and Transmembrane, Tumor-Associated Isozyme IX with Sulfamates Including EMATE Also Acting as Steroid Sulfatase Inhibitors," J. Med. Chem., 46(11): 2197-2204 (May 22, 2003)

BF

Wistrand and Lindqvist, "Design of Carbonic Anhydrase Inhibitors and the Relationship Between the Pharmacodynamics and Pharmacokinetics of Acetazolamide," In Carbonic Anhydrase - From Biochemistry and Genetics to Physiology and Clinical Medicine, Botrè et al., Eds., VCH, Weinheim, pp. 352-378 (1991)

BF

Wu et al., Cytoplasmic pH Responses to Carbonic Anhydrase Inhibitors in Cultured Rabbit Nonpigmented Ciliary Epithelium," J. Membrane Biol., 162: 31-38 (1998)

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